

A Tour of Geospatial Activities in Colorado

GIS in the Rockies
September 2009



City of Loveland



- Sign inventory
- Asset management
- Property reporting
- More



City of Greeley

GIS & Social Media

Don't turn away, take advantage!

GIS is at its core the infusion of data streams to make an intelligent decision. So why limit your data streams as a GIS professional.

Six questions to ask yourself if you are not already using Twitter;

But first, Why are you not using Twitter?

- Silly, I can't keep up with what I need to know now
- Takes too much time, I don't understand it, I don't have anything to say
- Nobody I know does it, I don't see how it can help my work
- It's a security risk, I don't know who to follow.

Any of those fit you?

And do your reasons outweigh your answer to the following....

City of Greeley

- **Stage 1 : Ridicule.**

- The management initially think these technologies are silly. Policy conversations are limited passed off as a 'fad'.

- **Stage 2 : Control.**

- The management grow concerned about abuse of the technology and work to control access at an agency level. Policy becomes defined by security and miss-understanding.

- **Stage 3 : One Way Street.**

- The management approves use of social media as a one way street for advertising, promotion, and information to a limited set of staff. Policy is adjusted for limited use with no access by individual employees.

- **Stage 4 : Experimentation.**

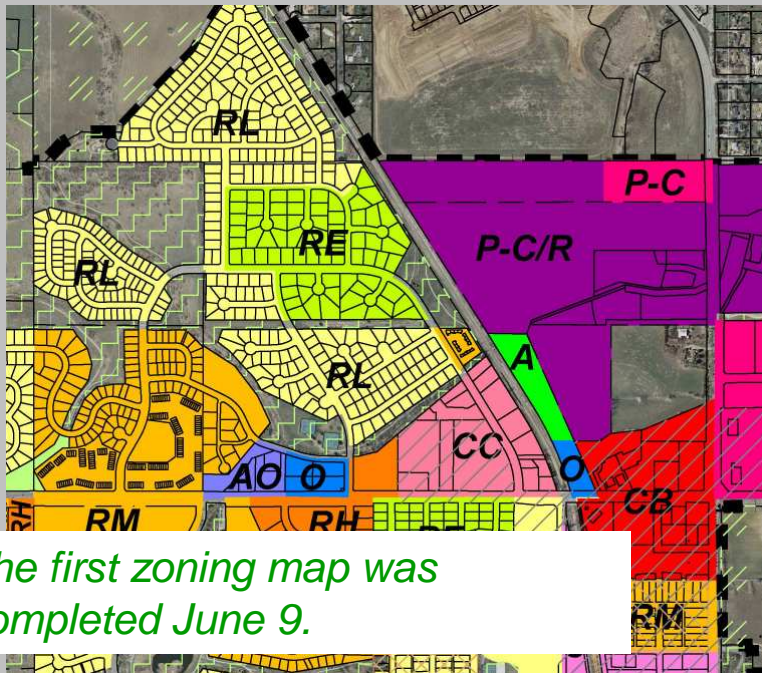
- The management begins to experiment with the technology themselves and find positive aspects. Policy is adjusted further to begin to allow access by individual employees with strict justification guidelines per employee, signed by supervisors.

- **Stage 5 : Dedication.**

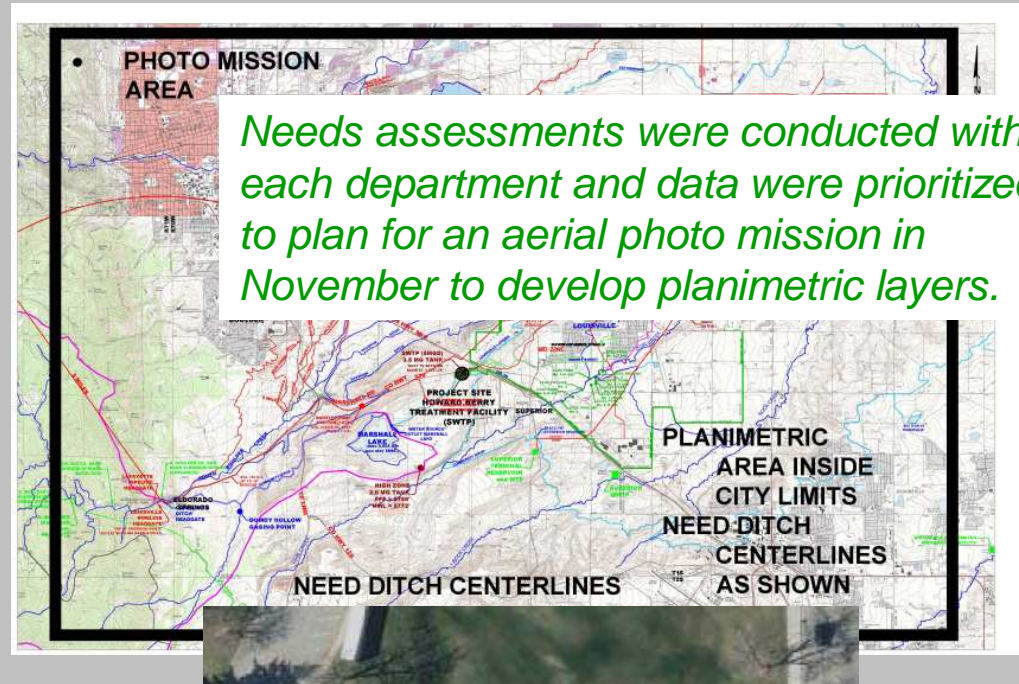
- Management wonders how the organization could function without the technology. Policy is open for the use of the technology with guidelines for supervisors on how to administer employees use, specific disclaimers are created, and standards.

City of Louisville

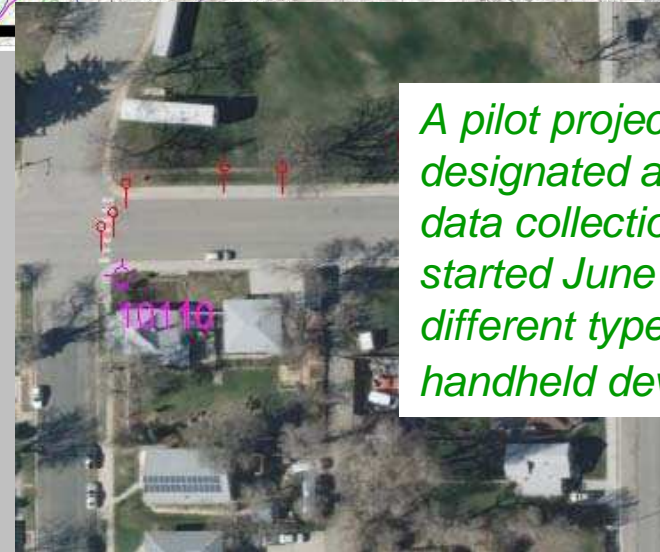
On May 4, 2009, the City of Louisville began developing their first Geographic Information System.



The first zoning map was completed June 9.

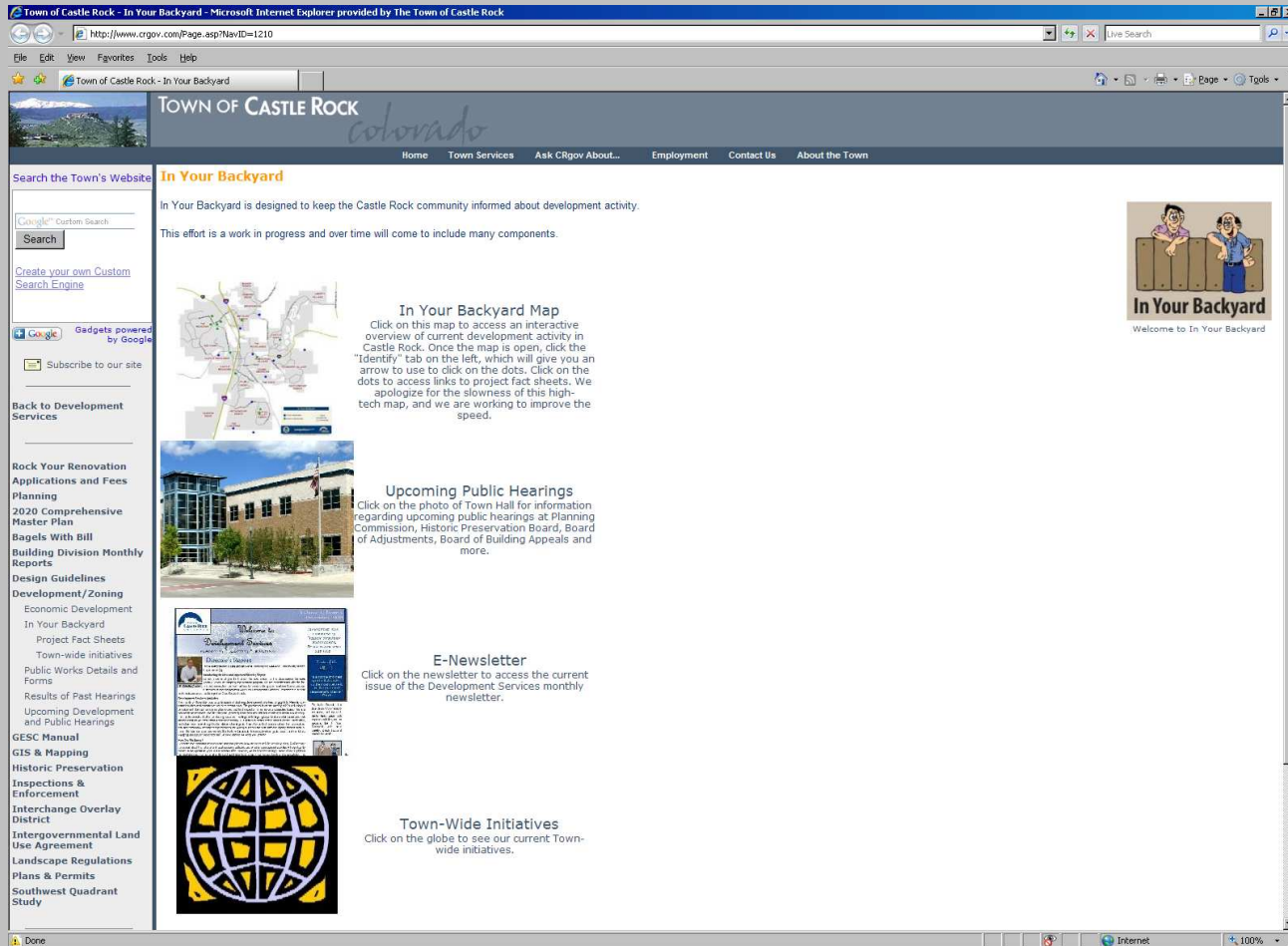


Needs assessments were conducted with each department and data were prioritized to plan for an aerial photo mission in November to develop planimetric layers.



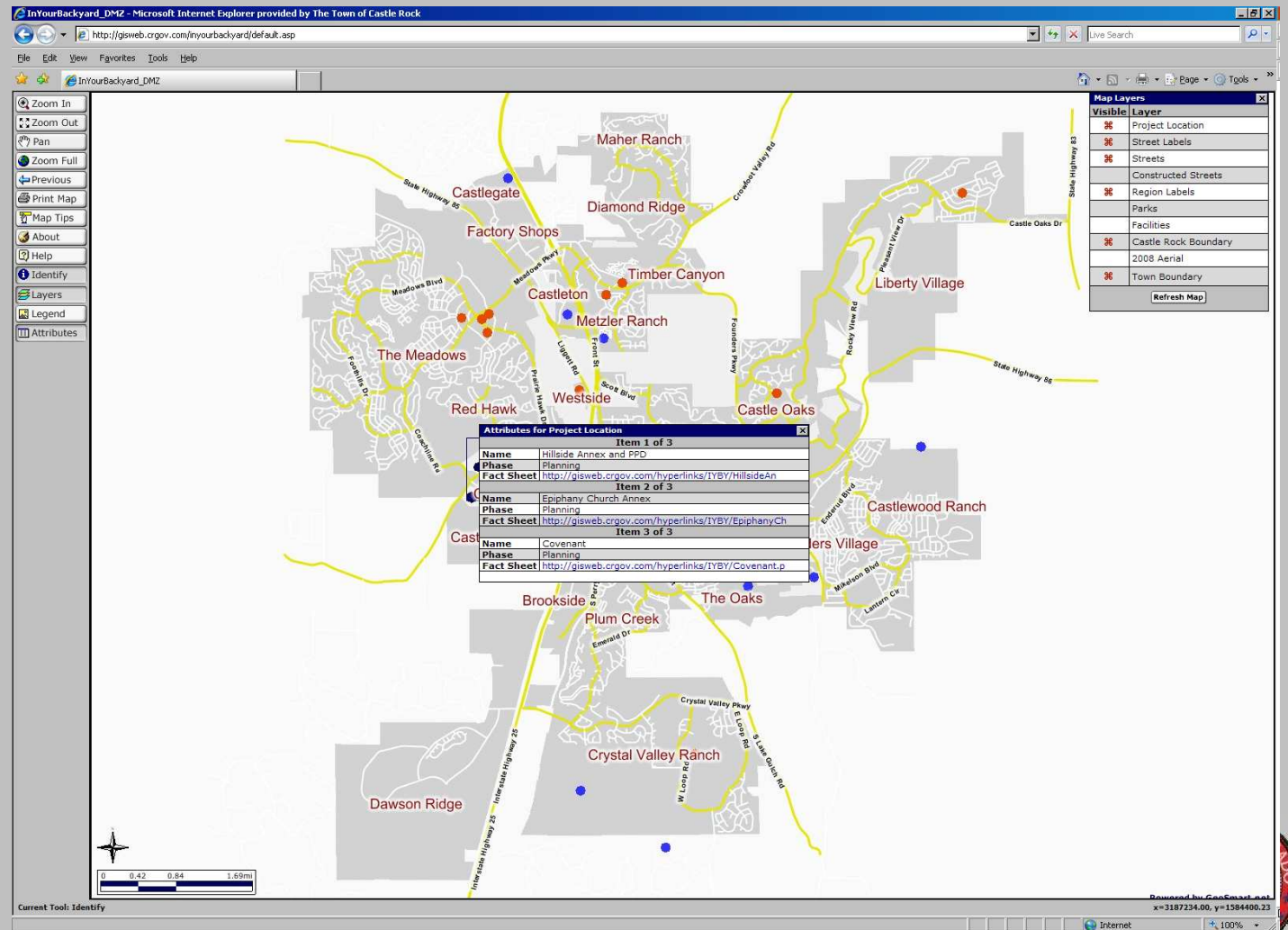
A pilot project area was designated and GPS data collection was started June 21 testing different types of handheld devices.

Town of Castle Rock In Your Backyard Main Page



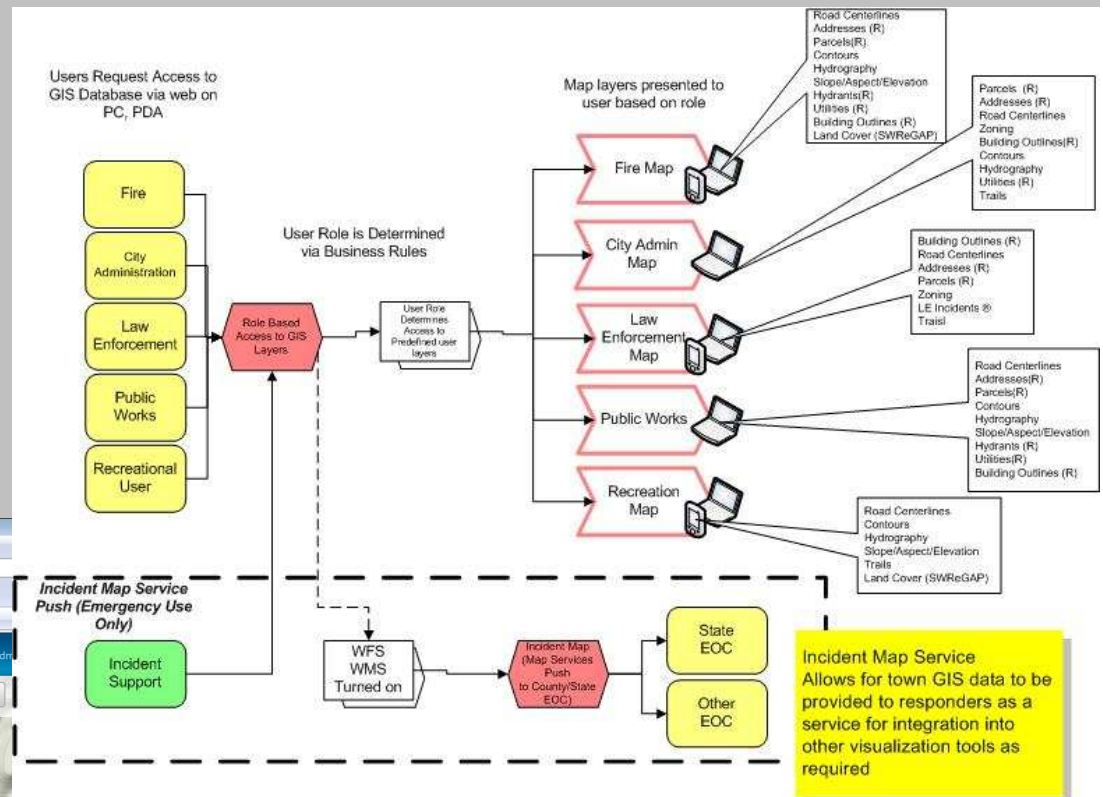
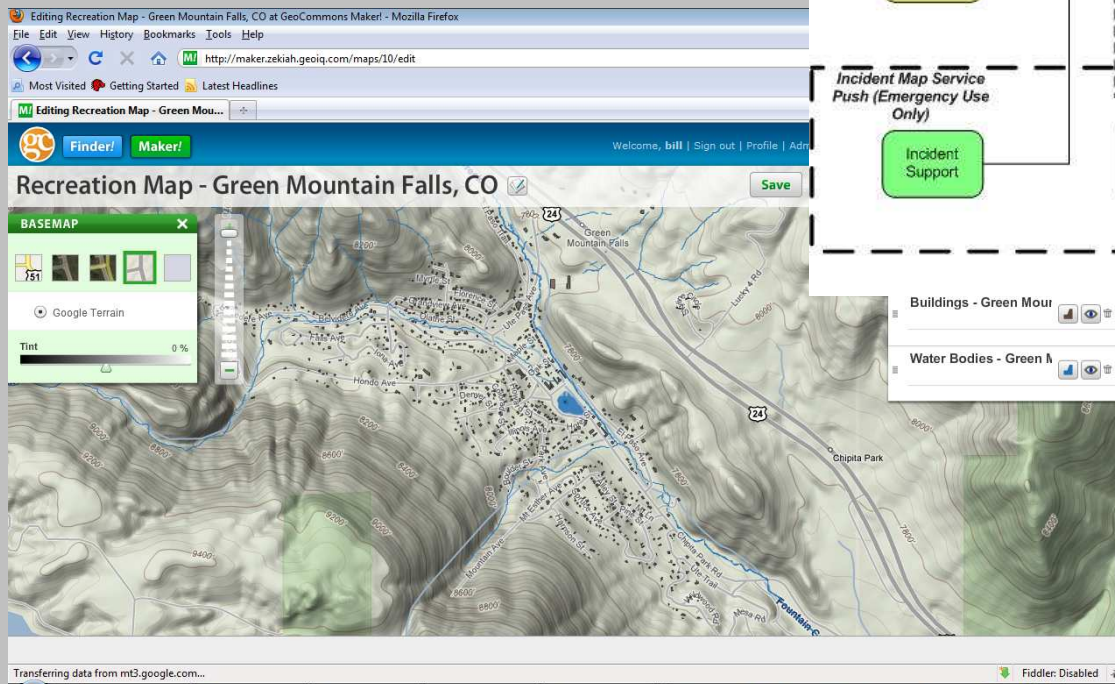
Town of Castle Rock

In Your Backyard Main Page

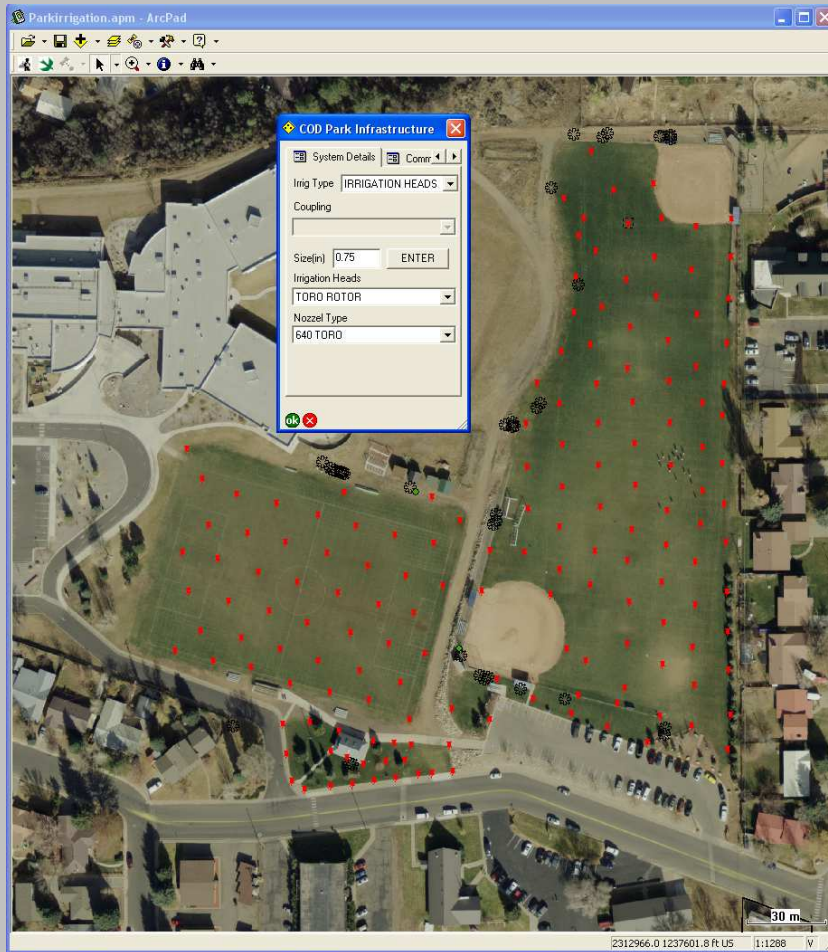


Green Mountain Falls

- Novel
- Low cost
- Open source



City of Durango



- Deploying custom applications of ArcPad on Trimble GPS units, the City of Durango is taking GIS to a micro scale by mapping irrigation valves, controllers, and sprinkler heads at all city parks and public buildings.

Aspen & Pitkin County Customer Survey

The screenshot shows a web browser window titled "City of Aspen and Pitkin County - GIS and Mapping - Windows Internet Explorer". The address bar displays "http://www.aspenpitkin.com/gis/". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The toolbar shows various icons for navigation and actions. The website header features the "City of Aspen & Pitkin County" logo and a navigation menu with links: "HOME", "VISITORS", "SERVICES", "DEPARTMENTS", "CALENDAR", "NEWS", and "CONTACT US". Below the header, there are dropdown menus for "City Departments" and "County Departments", and a search bar with a "Go" button. The main content area is titled "GIS & Mapping" and contains two paragraphs of text. The first paragraph describes the GIS department as a joint effort between the City and County, maintaining and updating geographic information. The second paragraph details the services provided, including custom maps and data analysis. To the left of the main content, there is a sidebar with "Department Pages" and "Contact Information". The "Department Pages" list includes links to "Department Home", "What is GIS?", "Products for Sale", "Map Gallery", "Data projection, accuracy and disclaimer", "GISMO - Online Mapping", "FREE Maps", and "Map of the Month". The "Contact Information" section provides the physical address (455 Rio Grande Pl, Aspen, CO 81611), hours (8:30am - 5:00pm M-F), and options to contact via web or email. It also includes a mailing address (130 S Galena, Aspen, CO 81611) and a link to the "Employee Listing". At the bottom of the browser window, the taskbar shows the "Internet" icon and a zoom level of "100%". A small circular seal is visible in the bottom right corner of the browser window.

City of Aspen and Pitkin County - GIS and Mapping - Windows Internet Explorer

http://www.aspenpitkin.com/gis/

File Edit View Favorites Tools Help

City of Aspen and Pitkin Co...

HOME VISITORS SERVICES DEPARTMENTS CALENDAR NEWS CONTACT US

City Departments County Departments Search go to Advanced Search

GIS & Mapping

The GIS department is a joint department of the City of Aspen and Pitkin County. GIS maintains and updates dozens of layers of geographic information in a computerized format. Geographic analysis of this data provides officials a better understanding of existing conditions in the city and county, improving their ability to deliver services to citizens.

Beyond maintaining and updating information, GIS creates custom maps and searches its layers of data for specific information. This service is provided to a wide range of city and county departments, citizens and businesses. For the general public, GIS publishes standard maps available at a reasonable cost, and will design custom maps at an hourly rate. The City of Aspen and Pitkin County GIS program is responsible for the development and maintenance of the region's digital spatial database and provides state-of-the-art mapping and data services to local government departments, citizens, businesses and visitors. Visit our gallery for examples of maps available to order.

We are now accepting Visa, Mastercard and American Express credit cards for GIS purchases.

Check out our [pretty aerial photographs](#). These oblique images were taken in 2004 and 2000 and provide a unique perspective from the air.

Visit [GISMO](#) - GIS Mapping Online. Locate addresses, streets, parcel ownership, zoning, voter precincts, polling places, view aerial photos and more!

NEW:
Free Electronic Maps
Free Maps - visit our new section of free downloadable electronic maps.
Map of the Month - Visit our new section "Map of the Month". GIS will use this area to describe a current GIS project or showcase a new map for our website visitors.

Department Pages

- Department Home
- [What is GIS?](#)
- [Products for Sale](#)
- [Map Gallery](#)
- [Data projection, accuracy and disclaimer](#)
- [GISMO - Online Mapping](#)
- [FREE Maps](#)
- [Map of the Month](#)

Contact Information

Physical Address
455 Rio Grande Pl
Aspen, CO 81611

Hours:
8:30am - 5:00pm (M - F)

CONTACT US VIA WEB
SEND E-MAIL

Mailing Address
130 S Galena
Aspen, CO 81611

CONTACT US VIA WEB
Employee Listing

Internet 100%



Mesa County Assessor Lookup

<http://assessor.mesacounty.us/parsearch.aspx>

Various Search Methods to Retrieve Assessor Information

Mesa County Colorado
Assessor Lookup

County Departments Mesa County Home August 20, 2009

Mesa County Assessor
Barbara Brewer, Assessor
Data Updated: 8/20/2009

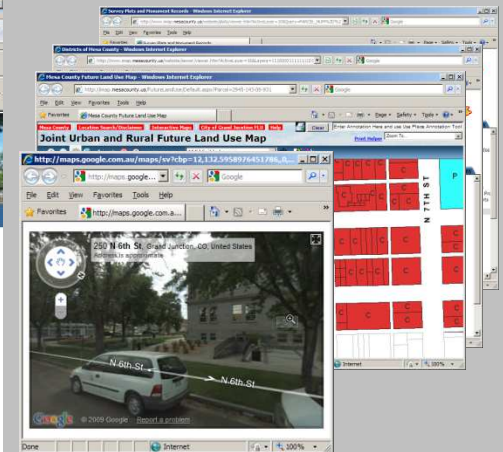
The Mesa County Assessor's Office makes every effort to collect and maintain accurate data. However, the Mesa County Assessor's Office is unable to warrant any of the information contained herein.

Mesa County Property Search Results

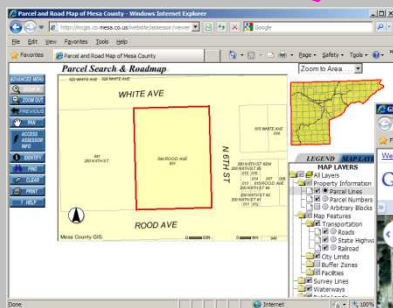
☐ Address ☐ Intersection ☐ Place Name ☐ Lat./Lon. ☐ Parcel Number ☐ Search by Area or Township

544 r

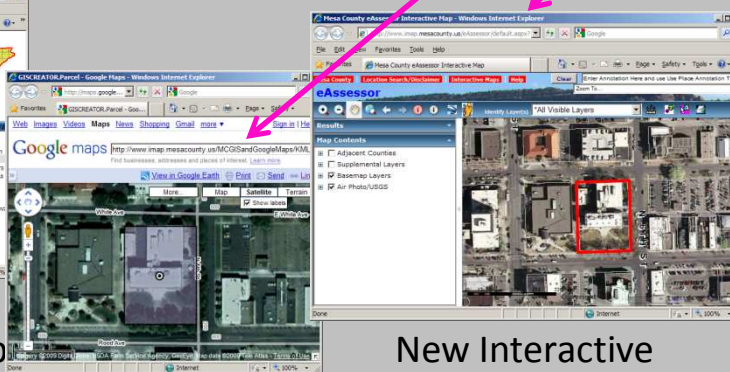
Parcel Number (Click for Map)	Address	Name (Click for Google Mapping)	Account Num. (Click for New Map)	Legal Description	Actual Value (Click for Details)
2945-143-08-931	544 ROOD AVE	MESA COUNTY	R063925	E 1/2 BLK 95 GR JCT COLO LOT 3A W/11 CW TRFF SJR SFC 9	\$4,755,520.00



Zoom to Parcel on 22 Different Maps Plus Google Street View



Interactive Parcel Search and Road Map



New Interactive Parcel Search and Road Map

Map Parcel In Google Maps or Google Earth

Mesa County Assessor Parcel Report

Footbridge Over Gunnison River

Property Information Report Date: 8/20/2009

Parcel Number: 2945 143-08-931
Account Number: R063925
Location: 544 ROOD AVE
PO BOX 20000
GRAND JUNCTION, CO 81502-5024
Owner: MESA COUNTY
Joint Owner: COURTHOUSE
Neighborhood: Exempt Commercial (10.98CM)
Assoc. Parcel: 1.243
Title Status: Exempt
Property Use: 1.243
Acres (Unofficial): 39.66878615
Lat. (Approx): 39.66878615
Long. (Approx): -106.56323930
Legal Summary: E 1/2 BLK 95 GR JCT COLO

Tax Information

Year	Prop. Code	Prop. Use	Land (Actual)	Land (Assessed)	Improvements (Actual)	Improvements (Assessed)	TAC (Assessed)	Rate	Special Tax	
2009	9131	1.243	\$4,187,368.00	\$648,170.00	\$4,755,520.00	\$1,191,130.00	\$187,970.00	\$1,379,100.00	10108 0.06878 0.00	\$0.00
2008	9131	1.243	\$3,244,760.00	\$540,140.00	\$3,784,900.00	\$940,980.00	\$156,640.00	\$1,097,620.00	10108 0.06878 0.00	\$0.00
2007	9131	1.243	\$3,244,760.00	\$540,140.00	\$3,784,900.00	\$940,980.00	\$156,640.00	\$1,097,620.00	10108 0.06832 0.00	\$0.00

*Current Estimated Tax is Using Previous Year's Mill Levy (Mill Levy Determined in December of Current Year)

Land Description

Year	Prop. Code	Prop. Use	Acres	Sq. Ft.	Units
2009	9131	ADMINISTRATION	0	54014	

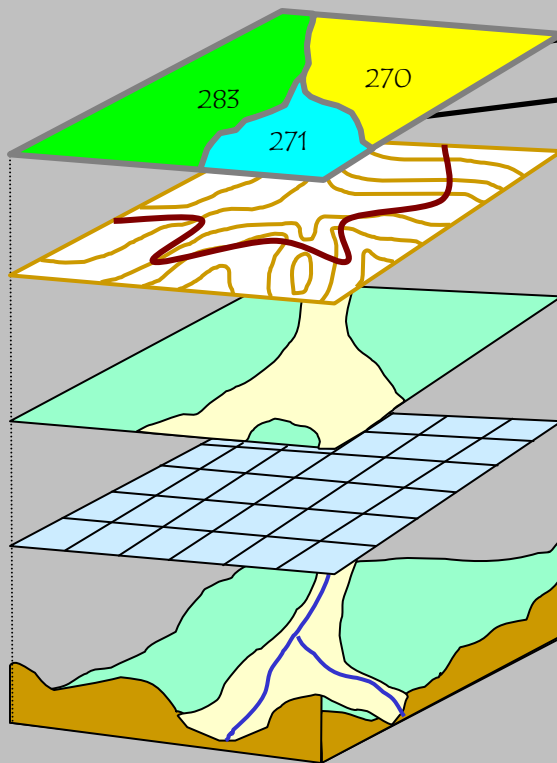
Photos

Photo 1 of 1 < Previous Next >

Detailed Parcel Report

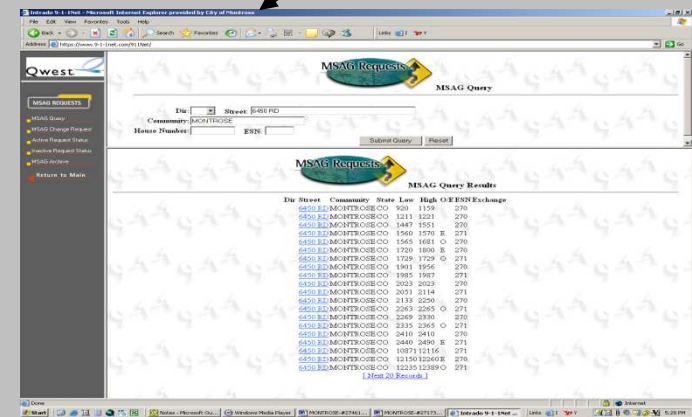


Montrose E911

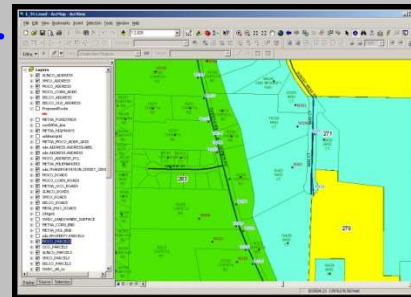


GIS ESZ MAP FEATURE ATTRIBUTE TABLE

ESN	LAW	FIRE	EMS
270	Montr PD	Montr FD Sta 1	Montr EMS Sta 1
271	MCSO	Montr FD Sta 1	Montr EMS Sta 1



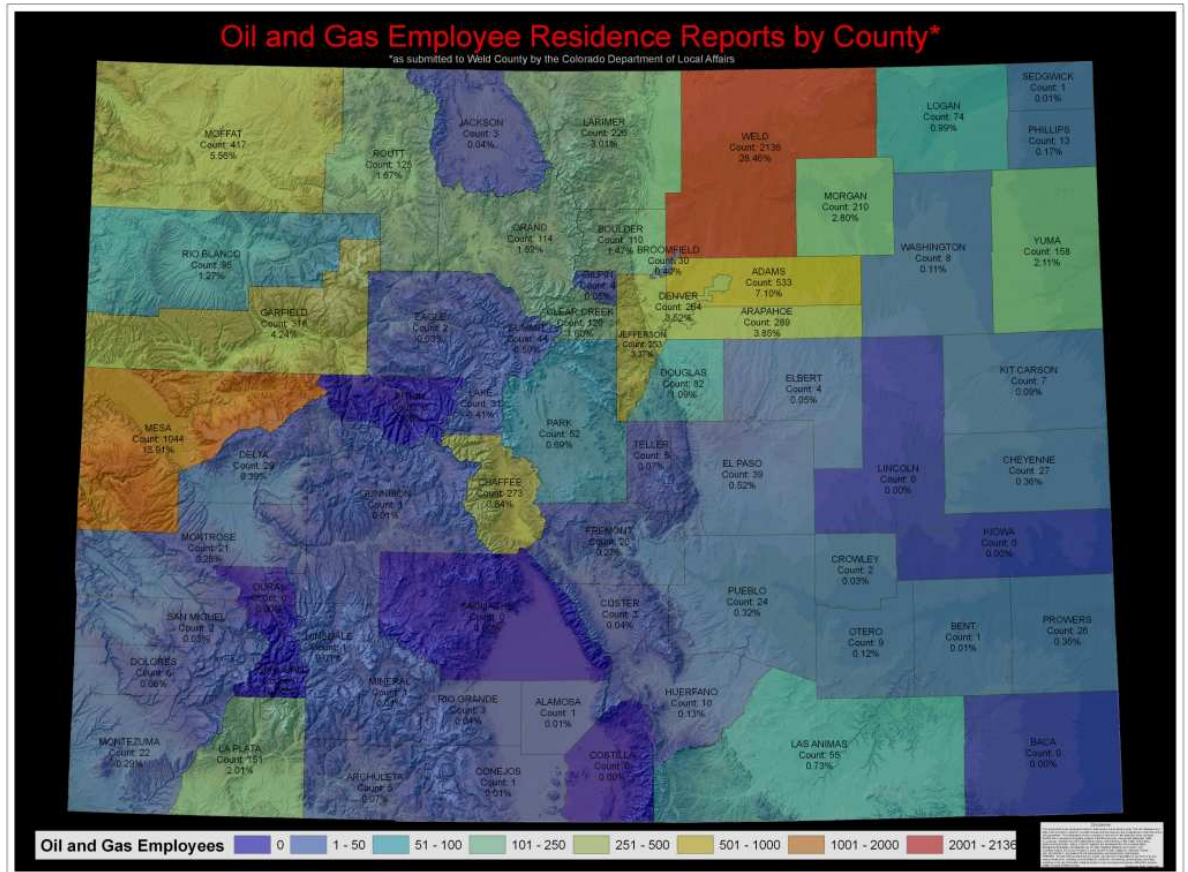
The Dispatch GIS immediately geocodes and plots the wireline 911 call's address, or plots the wireless call's coordinates. An auto-zoom in the GIS reveals the caller's location.



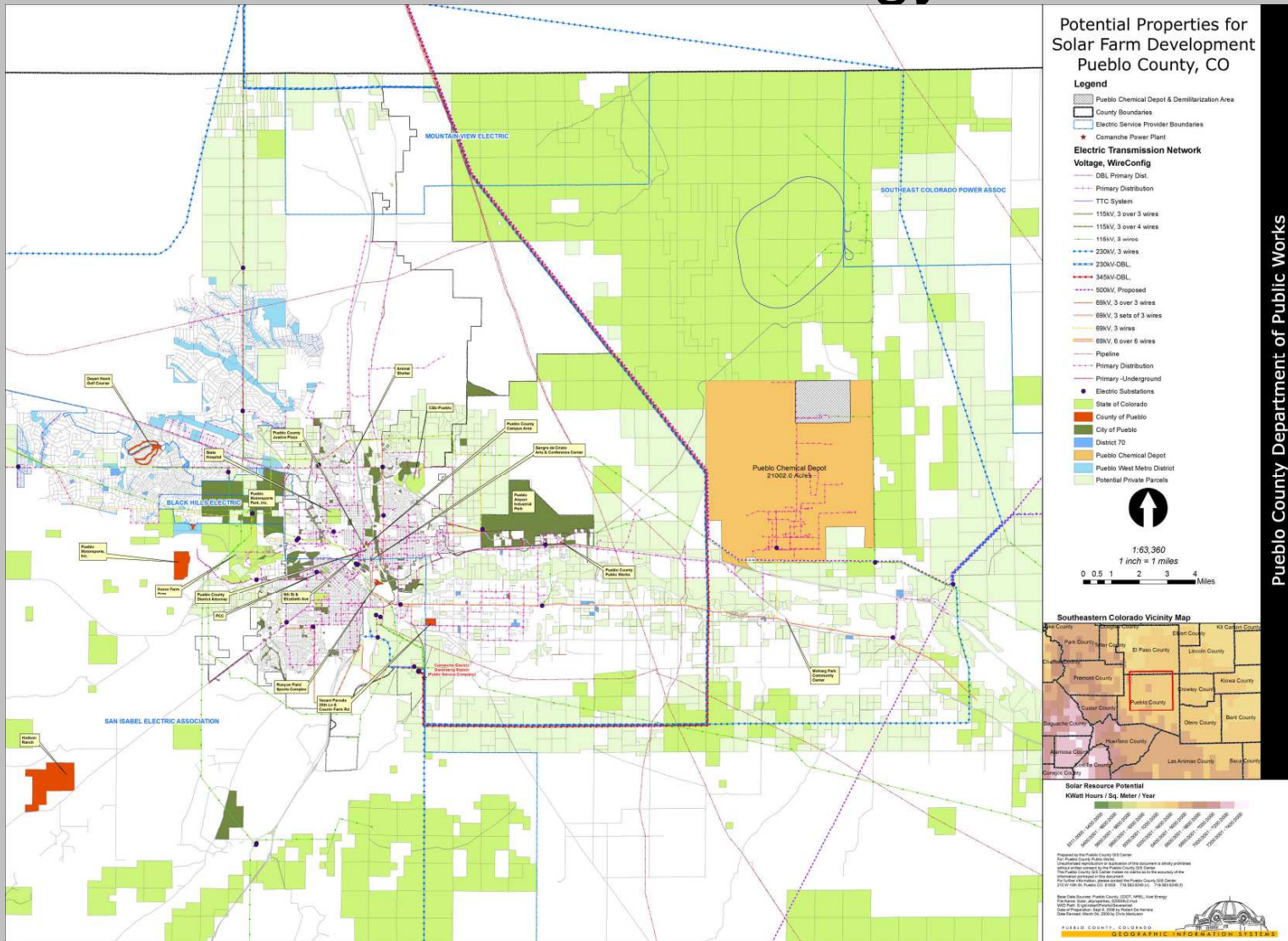
Law, Fire, and EMS service boundaries are based on roads, topography, waterways, sections, etc. New information is created from the base information when Emergency Service Zones are extracted as geographic intersections of the mapped service boundaries.

Weld County

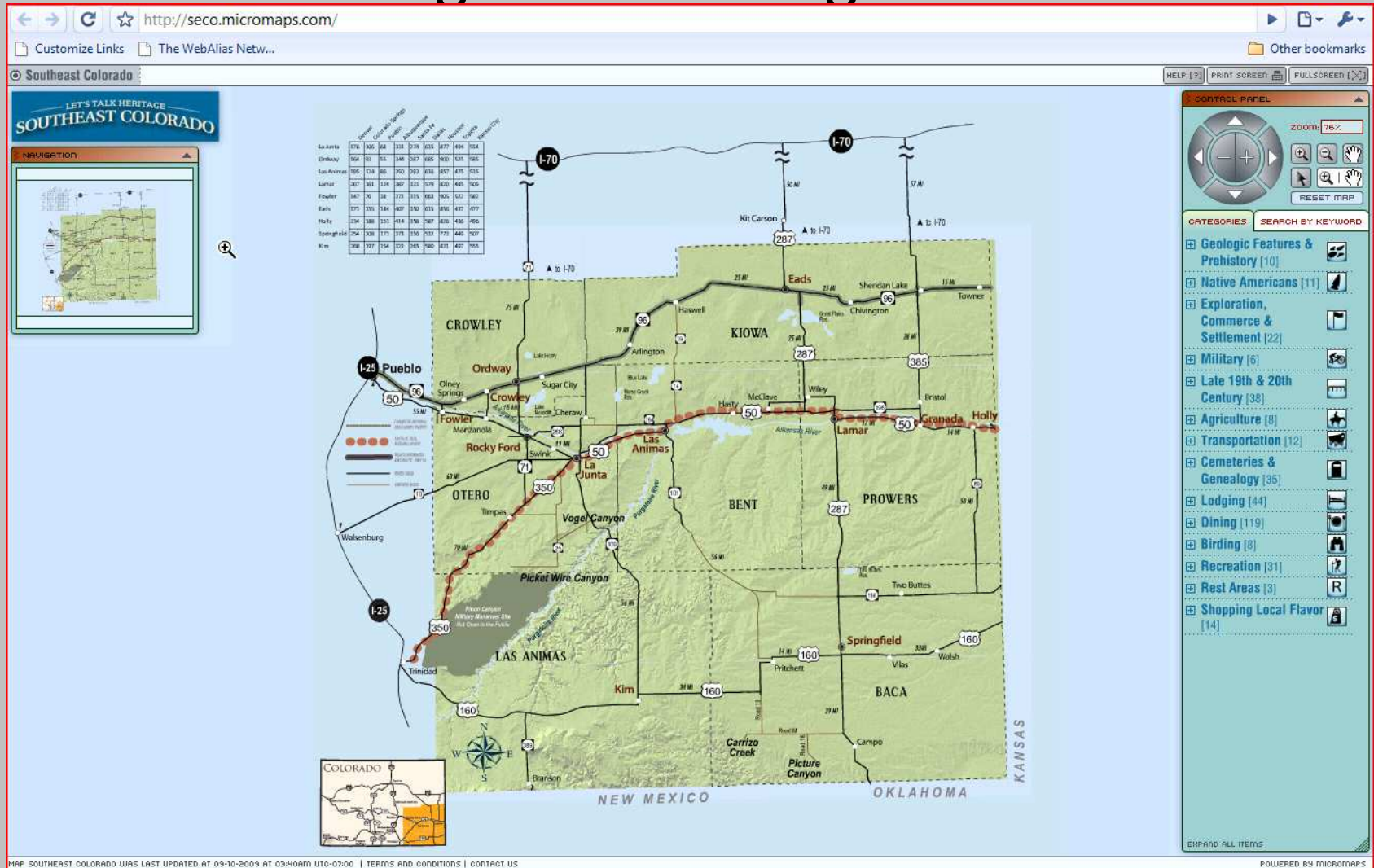
- Processed Oil and Gas Employee Residence reports resulting in a significant return on investment
- Created Dynamic Travel Time Polygons for Weld County Paramedic Services
- Working with the Health Department to document the relationship between schools and tobacco retailers
- Developing a Property Portal that will simplify access to public land-based information



Pueblo County Renewable Energy



Prowers County Regional Heritage Tourism



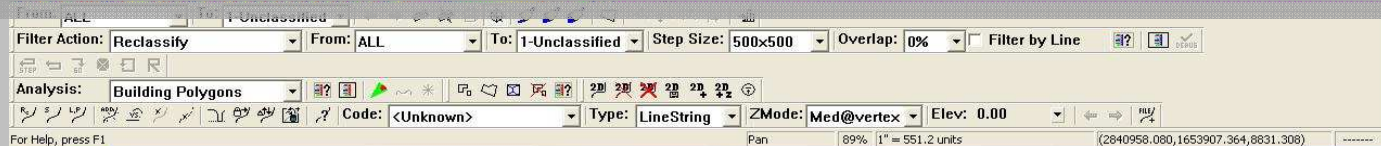
LiDAR Collection Rural Resort Area

Project Description

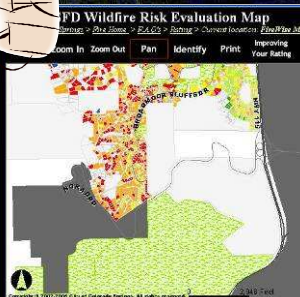
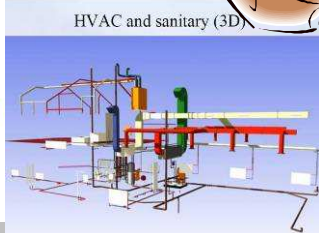
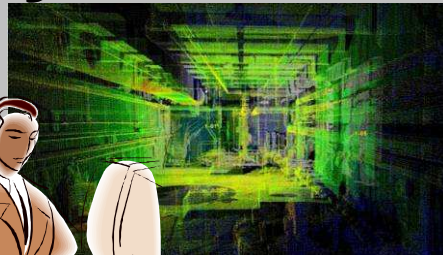
- 570 square miles of LiDAR and large format digital camera (DMC) collection.
- Consortium comprised of 26 separate sub areas
- LiDAR, 0.5' pixel digital orthos, 2' contours, planimetric capture

Description of Consortium Players

- 8 Town Governments
- 2 Counties (Summit and Eagle)
- 9 Metro Districts
- 5 Private Landowners
- EPA
- Denver Water Board
- Consortium is managed by North Line GIS and acquisition / mapping provided by Merrick & Company



GeoBase and Cheyenne Mountain AFS



Principle Requirements

Assure Tenant Operations

- Communications and power
- Facilities Management (floorplans)

GIS/BIM for Cheyenne Mountain

- Security for Cheyenne Mountain Operations
- Account for/visualize critical infrastructure
- Provide efficient, timely operations support

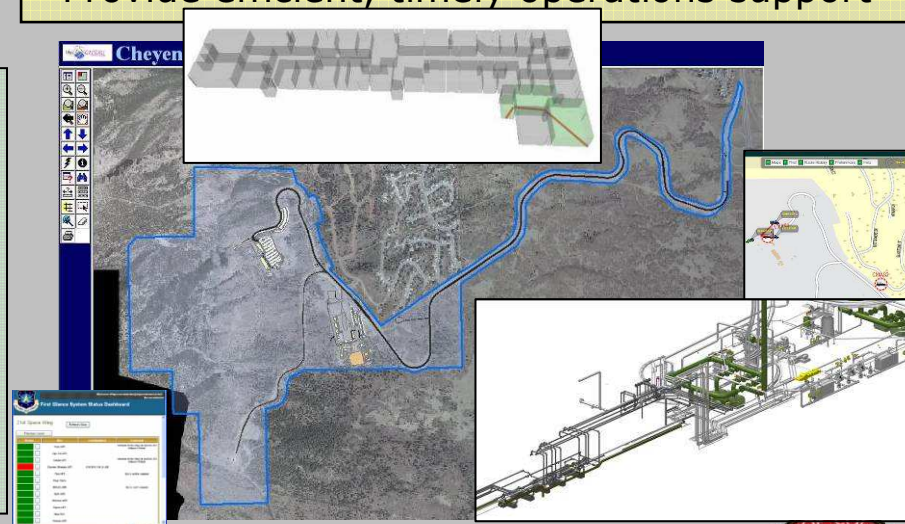
Implementation

Meet Air Force Requirements

- CIP, Fire, Real Property and Environmental GIS Requirements

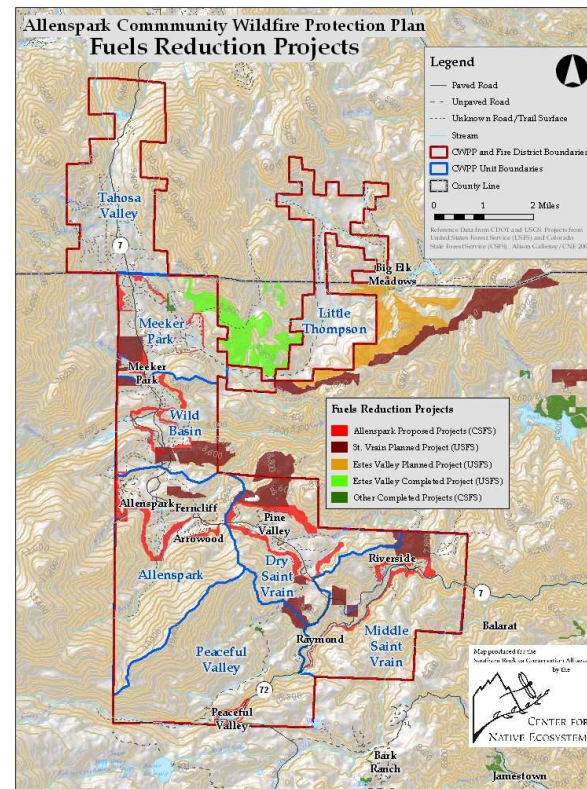
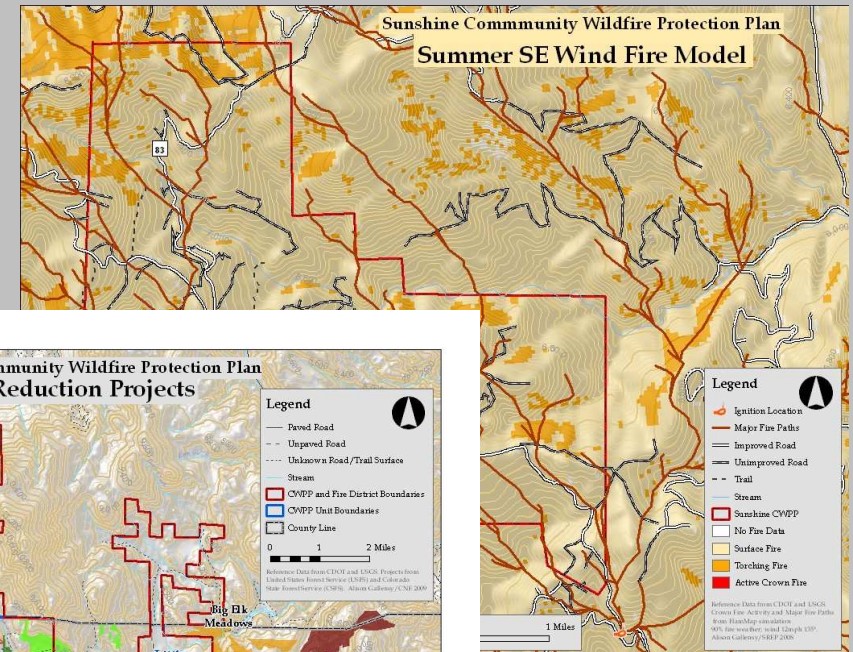
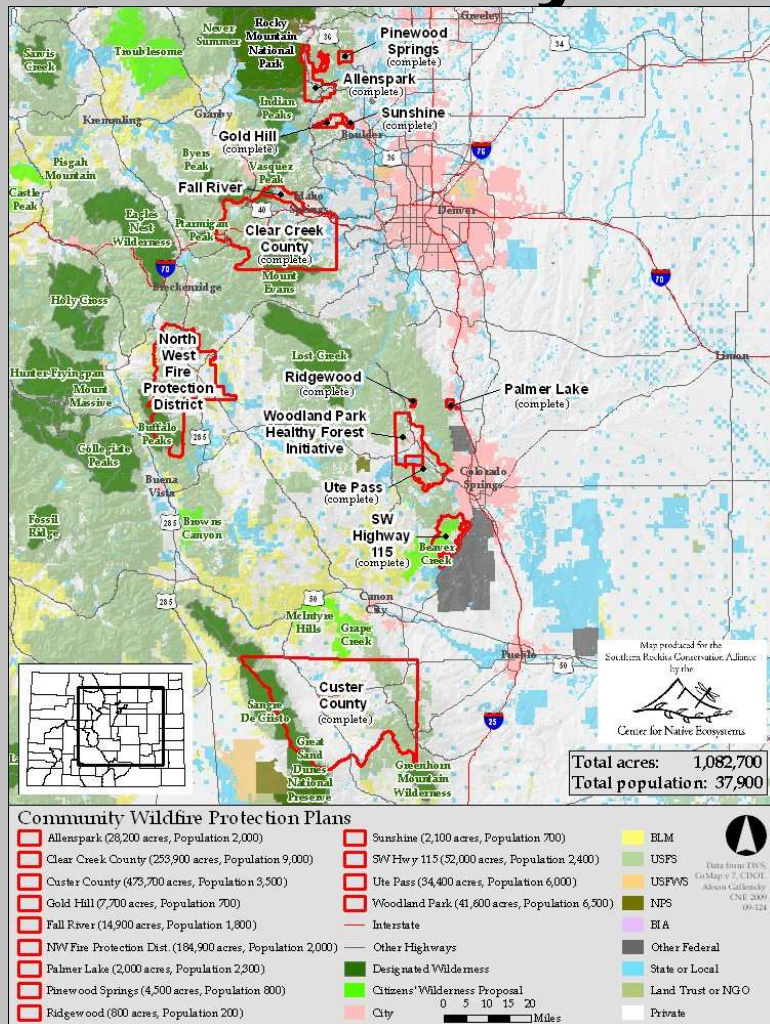
Integrated GIS/CAD/BIM

- Meet Installation AT/FP Requirements
- Locate and maintain complex infrastructures
- Reduce costs of operation with records



Center for Native Ecosystems & So. Rockies Cons. Alliance

Community Wildfire Protection Plans





GIS Alley

- Networking events
- Roundtable discussions
- Guest speakers
- Strategic plan/Branding of Cluster/logo
- Joint projects
- Grant proposals
- Promotion of industry, companies, technologies

- ▣ Dr. Joseph Berry – Berry & Associates / CSU
- ▣ Larry Brazil and Tim Martin – Riverside Technology
- ▣ Ron Brush – New Century SW/ RealGIS
- ▣ Russ Cowart – i-cubed
- ▣ Peter Curtis – ESRI- Commercial
- ▣ Mike Freeman – City of FtC
- ▣ Craig Harrison – Harrison Resource Corp
- ▣ Neil Havermale – Red Hen
- ▣ Brian Sullivan – City of Greeley
- ▣ Steve Holmes – City of Loveland
- ▣ Bruce Biggi – Carta Group – City of Greeley
- ▣ Glenn Vlass – Spatial Data Technologies/CartoPac
- ▣ Kelly Peters – RMI2
- ▣ Scott Simmons – Technigraphics

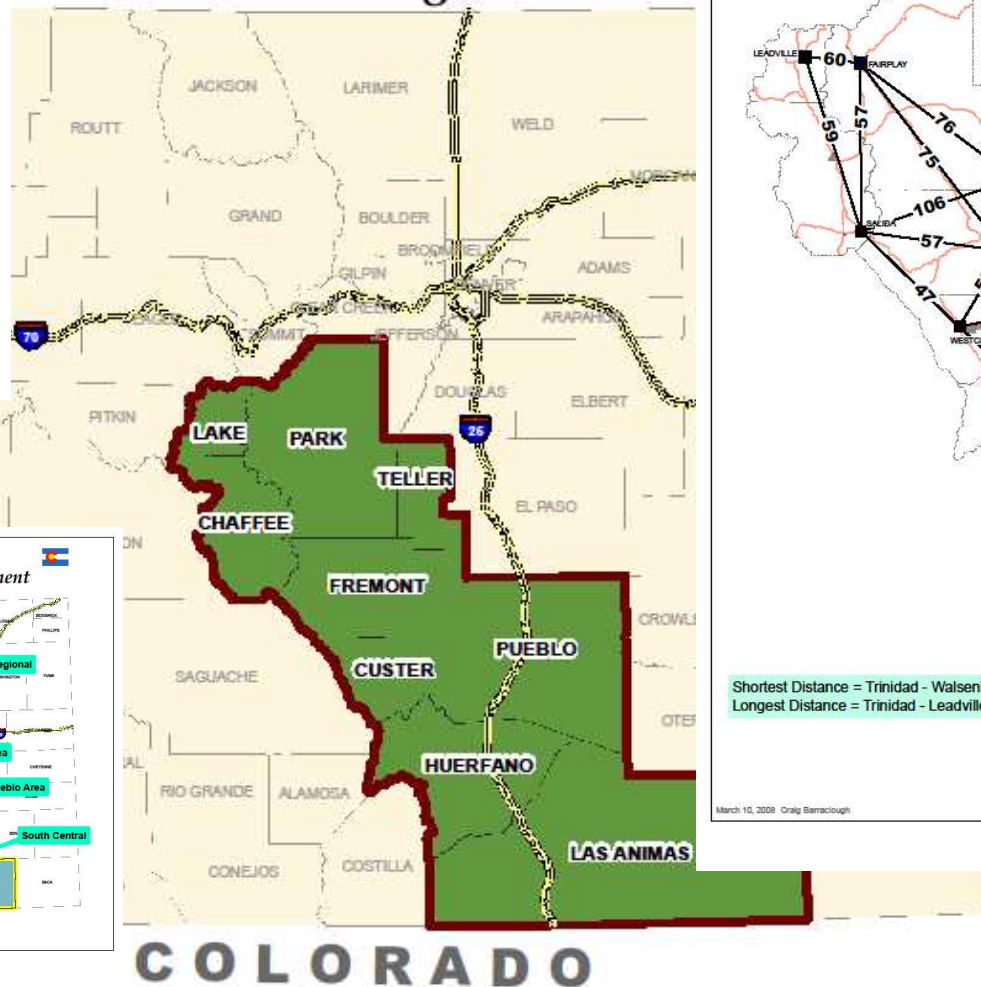
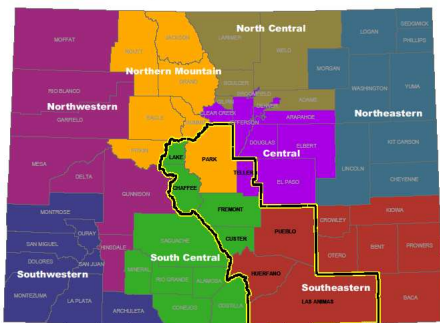
- ▣ Dave Bouwman – Data Transfer Solutions
- ▣ Sam Solt – Clear Path Labs
- ▣ Randy Paffenroth – Numerica
- ▣ Jon Lang – Production Engineering
- ▣ Ryan Smith – ESC Engineering
- ▣ Eric Strand – Synergetics
- ▣ Glenn Lathem
- ▣ Michael Seusy – John Deere
- ▣ Melinda Lauteuri - CSU

Sangre de Cristo Resource Conservation & Development



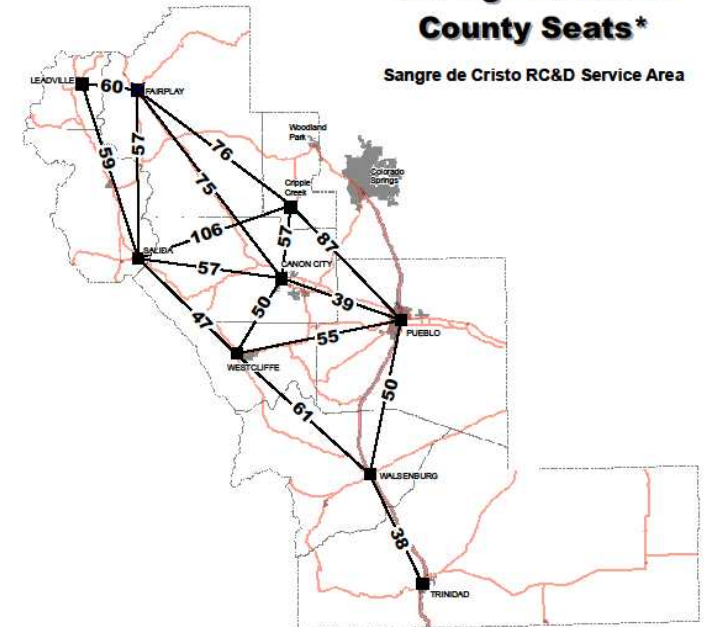
Sangre de Cristo RC&D Region

Sangre de Cristo RC&D Region + DOLA Regions



Mileage Between County Seats*

Sangre de Cristo RC&D Service Area



Shortest Distance = Trinidad - Walsenburg (38 miles)
Longest Distance = Trinidad - Leadville (205 miles)

March 10, 2008 Craig Barracough

*Derived from Google Maps™



Colorado Northwestern Community College Map Server Rio Blanco and Moffat Co's

http://www.cncc-gis.net/Community_Map/ - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites RSS Print Mail News Groups

Address http://www.cncc-gis.net/Community_Map/ Go Links

Google Search Bookmarks Check Translate AutoFill Sign In

Regional Mapping Service ESRI | ESRI Support Center | Help | CNCC Home | GIS Home

Print

Results

Map Contents

- ☒ Community_Map
 - ☒ Major Highways
 - ☐ Local Roads
 - ☒ Moffat Parcels
 - ☒ RBC Parcels
 - ☒ CNCC Buildings
 - ☒ Municipalities
 - ☒ Campus Color
 - ☒ TriCntyB_W
 - ☒ Topo3Cnty
 - ☒ states
 - ☒ County Coverage

STANLEY, CONRAD R. & BEVERLY M. (RBC Parcels)

FID	3549
PIN	139301303005
ACCOUNTNO	R100885
NAME	STANLEY, CONRAD R. & BEVERLY M.
ADDRESS1	
ADDRESS2	267 CREST STREET
CITY	RANGELY
STATE	CO
ZIPCODE	81648
STATUS	A
BUSINESSNA	
MAPNO	1393
CLASSCD	1112
ASSESSVAL	720

Community_Map > RBC Parcels
[Add to Results](#)

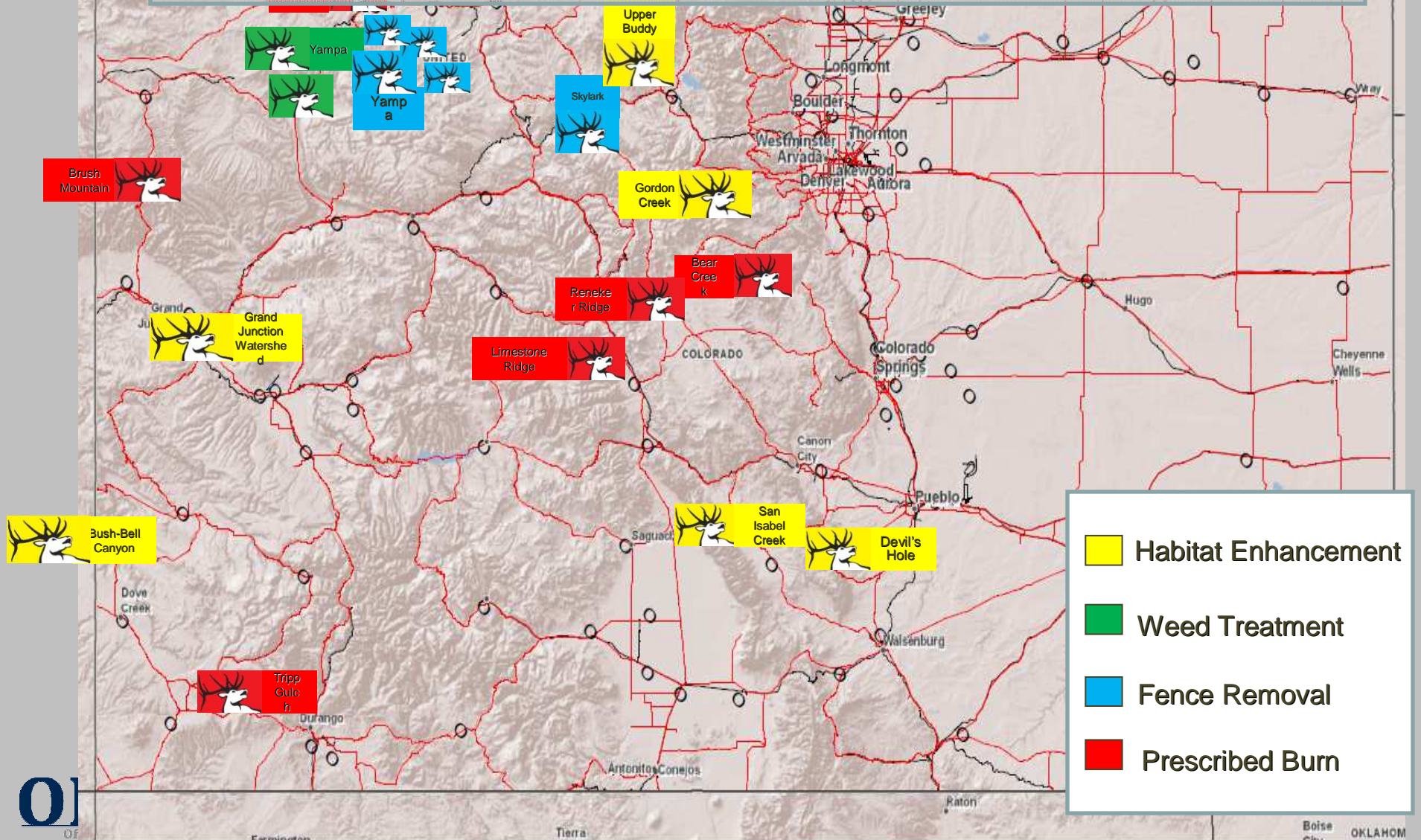
688026.112, 4439300.586

Start Microsoft Outlook Web A... Colorado Northwestern ... Colorado Northwestern ... http://www.cncc-gis... Microsoft PowerPoint - [...]

Internet 3:02 PM

Rocky Mountain Elk Foundation

2009 PAC Proposals



Mosquito Range Heritage Initiative




Mosquito Range Heritage Initiative - Windows Internet Explorer

http://www.mrhi.org/

File Edit View Favorites Tools Help

Mosquito Range Heritage In...



Mosquito Range Heritage Initiative

Park County, Colorado

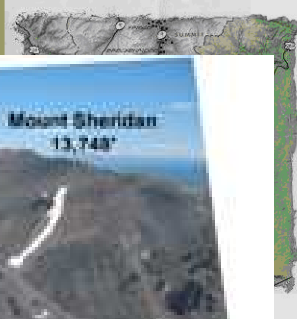
- Home
- About Us
- Membership
- Meeting Minutes
- Newsletter
- Press Releases
- Trail Brochures
- Sponsorship
- Stakeholders
- Wishlist
- Calendar

Tour de Fairplay - details & application

PARTNERS ANNOUNCE OPENING OF
LINCOLN-DEMOCRAT "14ER" TRAIL ACCESS IN PARK COUNTY

Mission Statement

"The Mosquito Range Heritage Initiative, through cooperative efforts, seeks to conserve unique natural areas, preserve historic & cultural sites, promote diverse recreation and develop community business opportunities."



th Century miners living in
ines. Visible clues to this
rich valley. This rich heritage,
races, provided the impetus for

nts biked and 4-wheeled for two
and rock hounding

Internet





Height Modernization NOAA

Access to accurate, reliable heights nationally
Standards that are consistent across the nation

Data, technology, and tools that yield consistent results regardless of terrain and circumstances

A system/process that will stand the test of time –
“Maintainable”

NOAA Colorado Height Modernization Program

Home
National Program
Colorado Program
Grant Program
Presentations

Participating states are initiating the implementation of the Height Modernization Program nationwide. Colorado's long-term plan includes an in-depth investigation to analyze and resolve geoid variances at high altitudes.

Mission Vision Plan Goal

MISSION: To facilitate the National Height Modernization Program in the state of Colorado.

[This link will take you to our Colorado Height Modernization Brochure](#)

The images below link to external sites that will open in a new window.

GPS
The traditional use of GPS for project control can be supplemented with Height Modernization standards, specifications, and techniques to enable surveyors to utilize GPS to efficiently establish heights for all types of positioning and navigational needs.

Leveling
Historically, leveling has been used for establishing heights for surveying and mapping applications. Leveling is time consuming and is the traditional means of establishing heights for projects. Leveling is continuously performed through the same benchmarks over and over with no efficient means of capturing the data for use in supplementing the national control network.

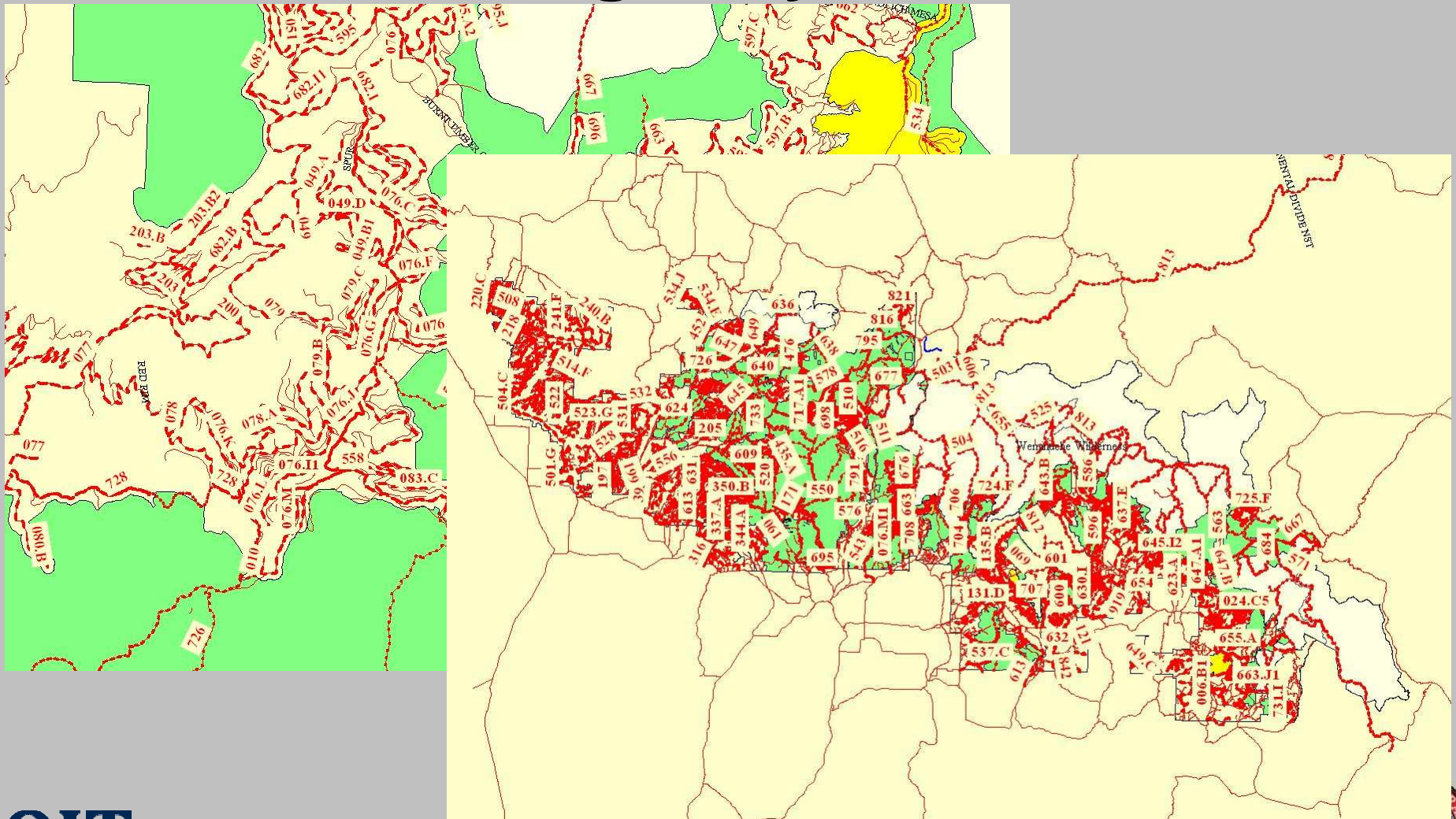
Gravity
Gravity affects the accuracy of heights derived from leveling and other methods of determining elevations for projects. Gravity measurements are seldom used in determining height measurements for everyday applications. There is a national program to help surveyors understand more about integrating gravity measurements into height solutions.

Photo Compliments of Hixon Manufacturing

GOV NOAA COLORADO

www.coloradoheightmod.com

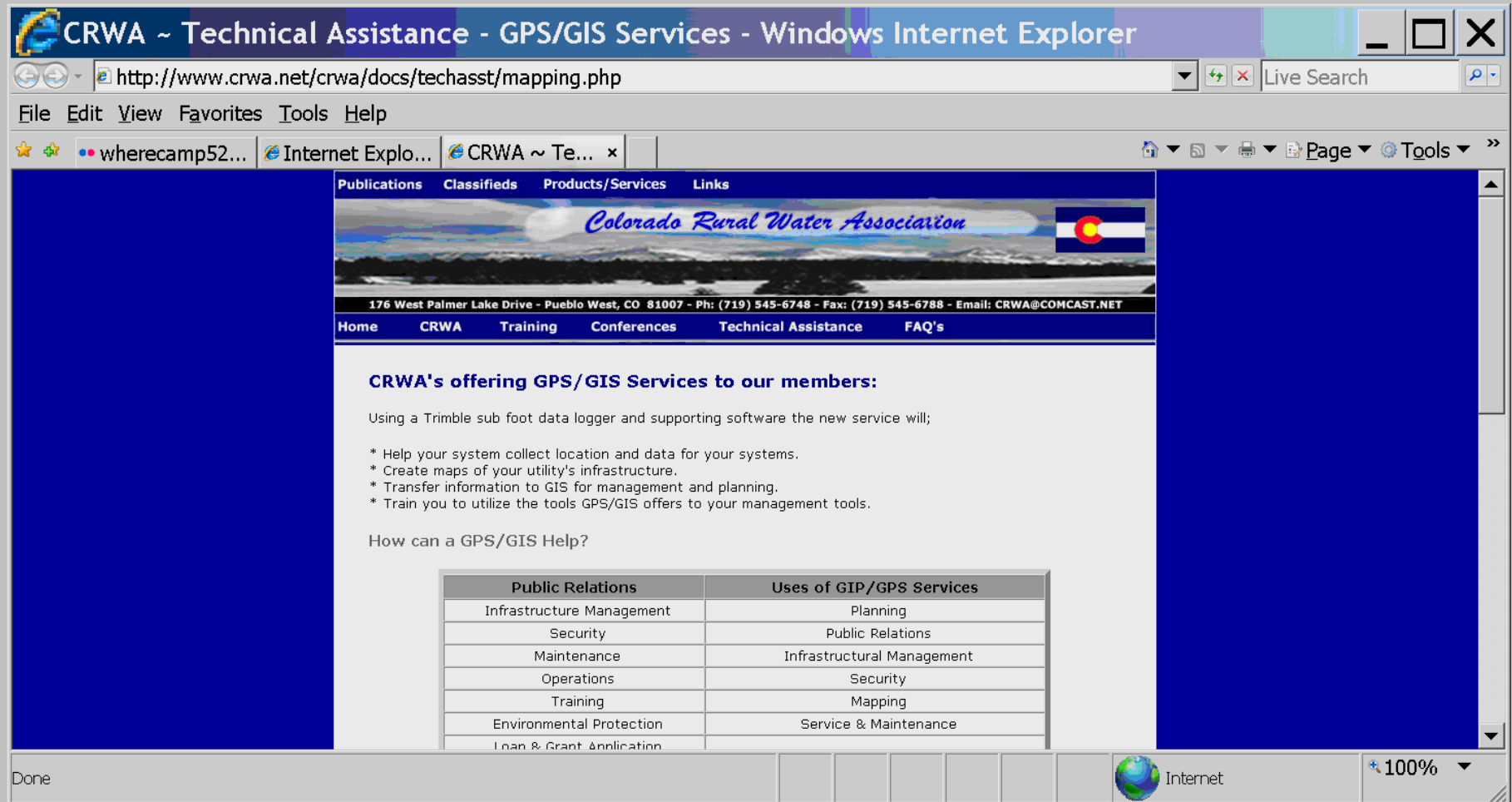
Colorado Off Highway Vehicle Coalition



Where Camp The “Unconference”



Colorado Rural Water Assn



CRWA ~ Technical Assistance - GPS/GIS Services - Windows Internet Explorer

http://www.crwa.net/crwa/docs/techasst/mapping.php

File Edit View Favorites Tools Help

wherecamp52... Internet Explo... CRWA ~ Te... x

Publications Classifieds Products/Services Links

Colorado Rural Water Association

176 West Palmer Lake Drive - Pueblo West, CO 81007 - Ph: (719) 545-6748 - Fax: (719) 545-6788 - Email: CRWA@COMCAST.NET

Home CRWA Training Conferences Technical Assistance FAQ's

CRWA's offering GPS/GIS Services to our members:

Using a Trimble sub foot data logger and supporting software the new service will;

- * Help your system collect location and data for your systems.
- * Create maps of your utility's infrastructure.
- * Transfer information to GIS for management and planning.
- * Train you to utilize the tools GPS/GIS offers to your management tools.

How can a GPS/GIS Help?

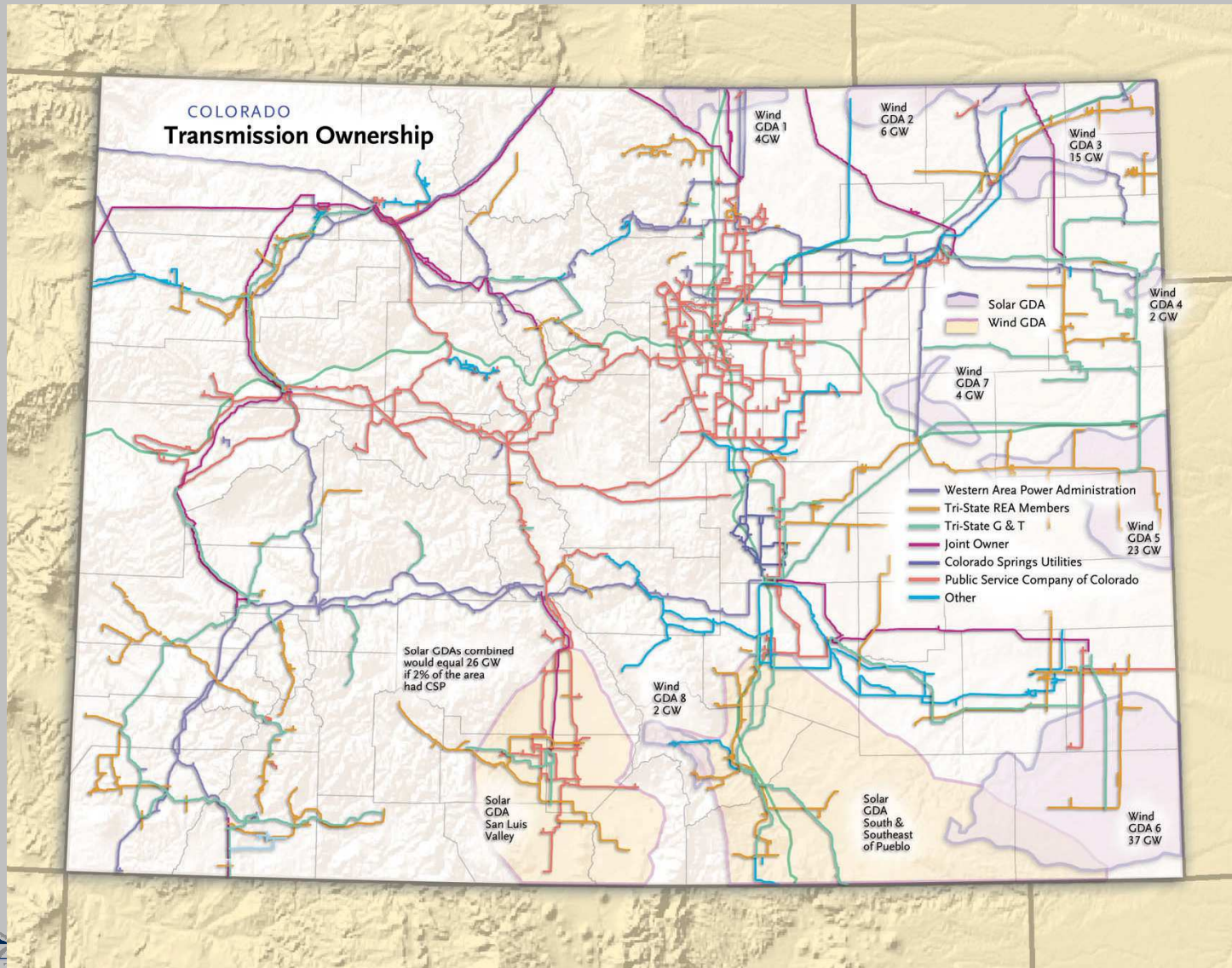
Public Relations	Uses of GIP/GPS Services
Infrastructure Management	Planning
Security	Public Relations
Maintenance	Infrastructural Management
Operations	Security
Training	Mapping
Environmental Protection	Service & Maintenance
Loan & Grant Application	

Done

Internet 100%

Transmission Studies for Renewable Energy

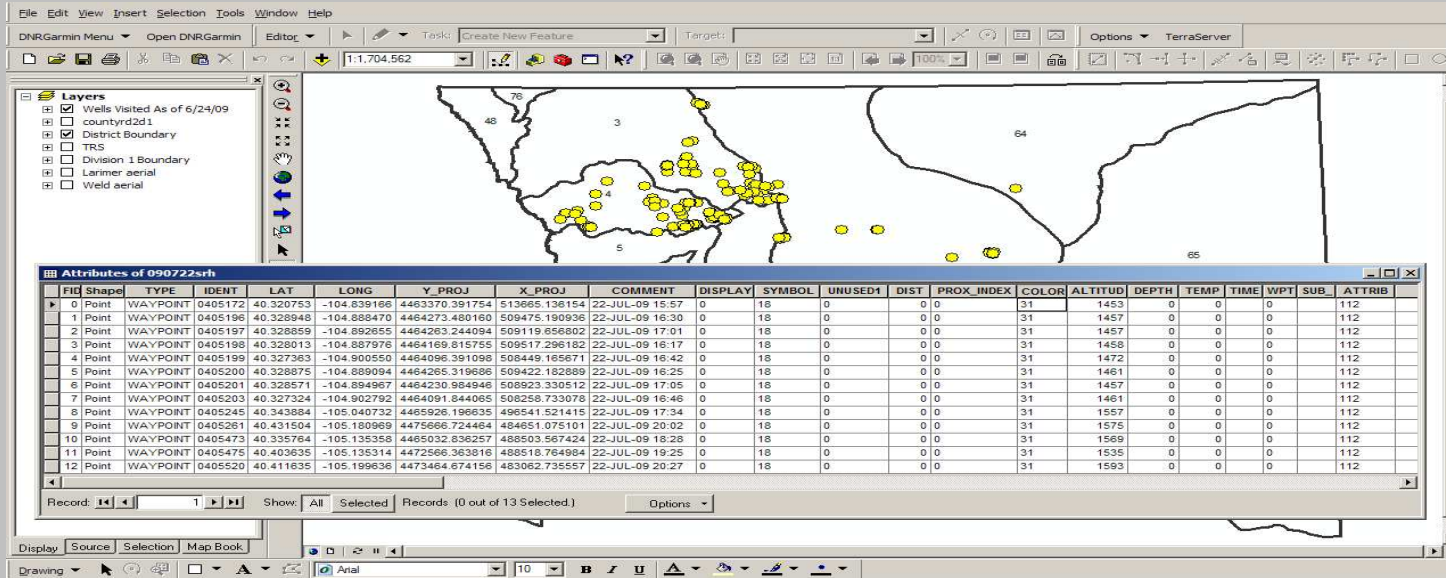
Colorado Governor's Energy Office



CO Dept. of Natural Resources

Div. of Water Resources

Groundwater Well Enforcement



CO Geographic Alliance





Colorado Geographic Alliance

COGA Home

open all / close all

- Join COGA
- What Geographers Do
- News and Events
 - Special Event: National Geographic's GIANT MAP in Colorado Springs
- COGA Newsletter
- Resources
- National Geographic Society
- Curriculum
- Ideas and Opportunities
- COGA History
- UCCS Geography and Environmental Studies
- Contact COGA

The Colorado Geographic Alliance is funded by a grant from the National Geographic Society Education Foundation and the Colorado Geography Education Fund

NEW OPPORTUNITY FUNDED BY NATIONAL GEOGRAPHIC: learn about DC Summit - meet National Geographic explorers, editors, and leaders and help shape the 2010 DC Summit program

[Geoliteracy Workshop in Pueblo for Elementary Teachers - September 12, 2009](#)

[GeoTechnology Workshop in Fort Collins for Elementary and Secondary Teachers - October 3, 2009](#)

[COGA Summer 2009 Newsletter](#)

[National Geographic Giant Traveling Map Coming to Colorado Springs - September 10 - 25, 2009](#)

[Interactive Workshop on Spatial Technologies for Career and Technical Education - September 11, 2009](#)

[Geography Awareness Week - November 15-21, 2009](#)

[COGA 2009 Summer Institute Photos](#)

[Coordinator Steve Jennings' COGA Presentation to GIS Colorado](#)

[Sign Up for the 2009-2010 Geography Bee Competition](#)

[2008 COGA Survey Results](#)



This is what geographers do: In this paper from the Journal for the Study of Food and Society, Air Force Academy Professor Terrence Haverluck looks at how Pueblo, Colorado has incorporated the chile pepper as its official symbol in an attempt to recreate its identity.

COGA seeks:

- To equip educators with solid geographic content knowledge, skills, and an awareness of the uses of the geographic perspective.
- To provide opportunities for educators to develop effective skills for geography instruction and the ability to evaluate and access instructional progress.
- To ensure that geography is valued as an important part of the curriculum by State and local governments, school districts, employers, and citizens.




© University of Colorado at Colorado Springs | Copyright | Privacy Statement | Vision and Values

GIS Programs/Classes

CO State University site

Geospatial Central **Colorado**

[Home](#) [About Us](#) [Contact Us](#) [Jobs and Internships](#) [Resources](#)


Adams State College
Aims Community College
Arapahoe Community College
Colorado College
Colorado Mountain College
Colorado Northwestern Community College
Colorado School of Mines
Colorado State University
Colorado State University-Pueblo
Community College of Aurora
Emily Griffith Opportunity School
Fort Lewis College
Front Range Community College - Boulder
Front Range Community College - Larimer
Mesa State College
Metropolitan State College of Denver
Pikes Peak Community College
Pueblo Community College
Red Rocks Community College
Trinidad Junior College

Higher Education Institutions with GIS

This map shows higher education institutions in Colorado which offer GIS classes, Certificates, and 2-4 year degrees in Geospatial Sciences. Click on each bubble to find out what is offered at that location.

Colorado

Map **Satellite** **Hybrid** **Terrain**


COMaP - Colorado Ownership Management and Protection - ...

<http://www.nrel.colostate.edu/projects/comap/>

File Edit View Favorites Tools Help

Page
Tools

COMaP

Colorado Ownership Management and Protection





~ Mapping the Status and Trends of Colorado's Protected Places ~

Home

[Open Space Inventory](#)
[Google Earth KML Files](#)
[Current COMaP Status](#)
[Project Overview](#)
[Technical Documents](#)
[PDF Maps, Summary Tables and NDIS Links](#)
[Collaborators](#)
[Contact Info](#)
[Links](#)

The goal of the Colorado Ownership, Management, and Protection (COMaP) project at the Natural Resource Ecology Lab (NREL) and the Human Dimensions of Natural Resources Department is to build a statewide protected areas map for Colorado. This project is being undertaken with funding and technical assistance from Great Outdoors Colorado (GOCO).

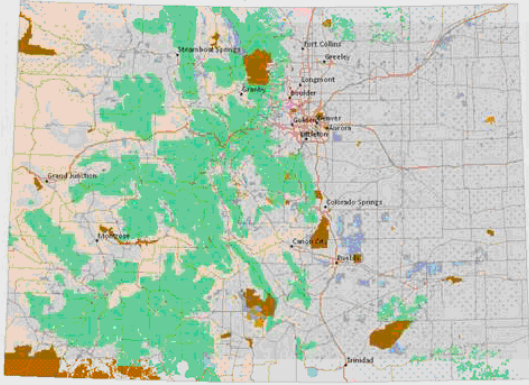
The fundamental premise of COMaP is that the landscape context (ownership and management) is important to natural resource management issues. Knowing the location and pattern of various protected areas is a key piece of information to inform management of many natural resources in Colorado. Local agencies, particularly those who have invested in building a GIS-based parcel dataset, often have up-to-date maps of protected areas. However, projects often require information at scales beyond local areas and these efforts must rely on datasets that are incomplete and out of date. Therefore, COMaP fills the need for a spatial database that provides comprehensive, current information about various levels of protection, such as county and city parks and open spaces, as well as Federal and State lands in Colorado.

Last updated on September 30, 2008

Colorado Ownership, Management and Protection (COMaP), Version 7

September 2008



Ownership by Group

- Private
- Federal
- USFS
- BLM
- State
- Local
- NGO/Land Trust

Done

Internet

75%